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AMENDMENTS TO THE CLAIMS

1. (currently amended) A cell comprising a functional oligomeric phycobiliprotein comprising a fusion protein comprising a functional displayed domain and a functional phycobiliprotein domain, wherein the fusion protein further comprises in addition to the functional displayed domain (a) a specific binding moiety selected from a streptavidin biotin-binding moiety, a biotinylated or biotinylatable moiety, and an antigen binding immunoglobulin moiety; or (b) a protease cleavage site between the displayed domain and the phycobiliprotein domain.

2. (original) The cell of claim 1, wherein the phycobiliprotein domain is a natural phycobiliprotein domain.

3. (original) The cell of claim 1, wherein the functional oligomeric phycobiliprotein is an $\alpha,\beta$ heterodimer.

4. (original) The cell of claim 1, wherein the displayed domain comprises a moiety selected from the group consisting of an affinity tag, an oligomerization moiety, a specific binding moiety, and a signaling moiety.

5. (original) The cell of claim 1, wherein the fusion protein further comprises a specific binding moiety selected from a streptavidin biotin-binding moiety, a biotinylated or biotinylatable moiety, and an antigen binding immunoglobulin moiety.

6. (original) The cell of claim 1, wherein the fusion protein further comprises a linker peptide between the displayed domain and the phycobiliprotein domain.

7. (original) The cell of claim 1, wherein the fusion protein further comprises a protease cleavage site between the displayed domain and the phycobiliprotein domain.

8. (original) The cell of claim 1, wherein the phycobiliprotein domain comprises at least one functionally attached bilin.

9. (original) The cell of claim 1, wherein the displayed domain is refractive to expression in *E. coli*.

10. (original) The cell of claim 1, wherein the oligomeric phycobiliprotein is assembled in a functional phycobilisome.

11. (original) The cell of claim 1, wherein the oligomeric phycobiliprotein provides a fluorescent tag.

12. (previously presented) The cell of claim 1, wherein the displayed domain is transparent to wavelengths of visible light absorbed by phycobiliproteins.

13. (previously presented) The cell of claim 1, wherein the displayed domain is transparent to wavelengths of energy emitted by the phycobiliprotein domain.

14. (original) The cell of claim 1, wherein the cell is or is a progeny of a cell which naturally expresses a phycobiliprotein.

15. (original) The cell of claim 1, wherein the cell is a cyanobacterium.

16. (original) The cell of claim 1, wherein the cell is a rhodophyte (red algae).

17. (original) The cell of claim 1, wherein the cell is a cryptomonad.

18. (original) The cell of claim 1, wherein the cell is an Anabaena cell.

19. (original) The cell of claim 1, which comprises a polynucleotide encoding the fusion protein, and produces the oligomeric phycobiliprotein.

20-22. (canceled)